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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/016,785 | 12/06/2001 | Alan L. Ferguson | 01-409 | 3421 |
| 719 | 7590 | 05/16/2005 | EXAMINER | |
| CATERPILLAR INC. 100 N.E. ADAMS STREET PATENT DEPT. PEORIA, IL 616296490 | | | STEELEMAN, MARY J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2191 | |

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|------------------|-----------------|------|
| Application No. | FERGUSON ET AL. | |
| 10/016,785 | Examiner | |
| Mary J. Steelman | Art Unit | 2191 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 13 December 2004.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-27 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 13 December 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) Notice of Informal Patent Application (PTO-152)
6) Other: Copy of accepted drawings.

DETAILED ACTION

1. This Office Action is in response to Amendments and Remarks received 13 December 2004. Per Applicant's request claims 1-4, 6-9, 12, 13, 19-23, 26, and 27 are amended. Claims 1-27 are pending.

Drawings

2. In view of the amended drawings, the prior objection is hereby withdrawn.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,529,784 B1 to Cantos et al., in view of WO 97/46932 to Lee and Kyle (12/1997) (hereinafter Lee), and further in view of US Patent 5,517,434 to Hanson et al.

Per claims 1, 12, and 26:

-updating software installed on a... machine, the... machine having at least one non-volatile memory for storing the software, comprising:

-a remote data storage system for storing identifying information of said software;

(Cantos: Col. 2, lines 29-30, "...agent for collecting configuration, diagnostic, frequency of use of other information from the target computer system...")

-a remote processor for monitoring said remote data storage system to determine if updates are available for said software;

(Cantos: FIG. 1, col. 2, lines 50-52, "...components of the system for monitoring target computer systems and communicating software information to target computer system users.")

-a remote communications system operably connected to said remote processor, said remote communications system receiving said available updates from said remote processor and relaying said available updates to said... machine for storage in said non-volatile memory.

(Cantos: Col. 6, lines 13-21, "The control server may also access information in the KB to determine when the new software packages are available to customers. Upon finding that a new software package is available, the control server may send a general message to all agents communicating with the control server that the software package is available. Alternatively, the control server may send a message that the software package is available to only those agents whose target computer system are compatible with the new software package.")

Cantos failed to specify that the update would be to non-volatile memory. However, Lee disclosed a remote updating system and method and specified (page 8, lines 12-13) that "hardware, firmware, or software in the client system" or (page 6, line 35) 'ROM' could be upgraded. Hardware and firmware are non-volatile.

Cantos / Lee failed to disclose that the invention was installed on a 'work machine.' However, Hanson disclosed updating software installed on a work machine. Col. 17, lines 45-61, "In the early embodiment as intended to be used on a vehicle (e.g. farm tractor) (work machine), the terminal contained data storage means mounted at 370 (e.g. including one-half megabyte of RAM, and EPROM) and microcomputer operated control means mounted at 380, with the EPROM containing downloading/uploading control programming (updating software installed on a work machine) and application programming in RAM storage of means 370 for controlling on board devices and for receiving and storing data from a multiplicity of on-board analog and digital sensors as a basis for such control. The rechargeable battery means 360 received charging current from vehicle electric power while the terminal was in the vehicle mounted receptacle. The battery means facilitated transport of the terminal means to another receptacle e.g. associated with a personal computer system, and generally insured against loss of data from random access memory of the data storage means at 370.

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Cantos / Lee include updates to memory on 'work machines' as suggested by Hanson, because vehicle controllers / computers are known in the art and maintaining, updating the controllers enhances the value of such equipment. The ability to (Hanson, col. 1, line 53) "survive rough handling" was suggested by Hanson to demonstrate a computer / controller in a 'work environment,' Hanson disclosed the need to download / upload control programming and application programming (col. 2, lines 6-12), a data capture system, which could be quickly and simply loaded in a relatively foolproof manner, without requiring attention

and care from operators engaged in physically demanding and arduous work routines.” Thus Hanson showed the advantage of updating controllers / computers on a ‘work machine.’

Per claims 2, 13, 17, and 27:

-an interface for notifying an owner of said work machine of said available update.

(Cantos: FIG. 2B, #204, #206, col. 8, lines 44-55, “If the message is related to the target computer system, the agent determines whether the information is to be sent to the user...”)

Per claims 3, 14, and 15:

-said interface allows said owner to communicate acceptance of said available update and wherein said available update is relayed to said work machine upon said owner communication acceptance.

(Cantos: FIG 2B, #206, #210, col. 8, lines 55-58, “...initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form...user input may be required for further action”, col. 9, lines 3-5, “...after communicating the relevant information to the user, the agent would proceed to block and would perform these download and installation functions if instructed to do so by the user...”

Cantos fails to specifically state “update is relayed to said machine upon said owner communicating said acceptance.” However, Lee and Kyle disclosed (page 7, lines 13-14) “process is useful for upgrading a client system in order to modify it based on payment of an

appropriate agreed upon price..." and (page 7, lines 32-34), "program proceeds to the 'receive upgrade cost from server' ...then goes to the 'is upgrade cost acceptable?'" Lee and Kyle more explicitly demonstrate owner acceptance. Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify Cantos, to include owner communicating acceptance, because Cantos also relates to updates to owner's computers, and suggests that fees and payment may be involved (col. 10, lines 23-25 and col. 10, lines 42-44) in an updated software installation..

Per claim 4:

-said interface includes an electronic message for notifying said owner.

(Cantos: FIG. 2B, col. 8, lines 55-58, "...initiates the presentation of relevant information to the user...user input may be required for further action..."

Per claims 5 and 18:

-said electronic message includes a link to a web site allowing said owner to communicate acceptance of said available update.

(Cantos: Col. 3, line 55, "...Web server...", col. 6, lines 39-50, "A user query may be submitted to the control server...or...directly from the user through a Web browser and the Web server...A user query may also be sent to determine whether upgraded versions of software packages are available and compatible..."

Per claims 6 and 16:

-a billing system operably connected to said remote processor for billing said owner for said accepted available update.

(Cantos: Col. 2, lines 40-42, "...enrolling customers to receive computer system management services for a fee...", col. 10, lines 23-25, "The software and hardware management services described above may be provided to subscribing customers for a fee", col. 10, lines 42-44, "...payment status information, billing and subscription about the customer is stored..."

Per claim 7, 19, 20 and 21:

-a machine processor for polling said at least one non-volatile memory / in said work machine / to collect said identifying information;

(Cantos: Col. 4, lines 5-7, "An agent associated with a target computer interrogates the target computer of system information. The agent may be implemented using a polling-only approach...", col. 6, lines 30-34, "An agent may be multi-threaded to perform several operations at once...listen for software configuration and alert messages from the control server and transmit information to the management tool, control server, of KB..."

-a machine data storage system for storing said identifying information, said identifying information being relayed from said machine data storage system to said remote data storage system.

(Cantos: Col. 4, lines 46-48, "The agent transmits target computer system information in a communications network over network connection...", col. 7, line 66- col. 8, line 1, "...agent transmitting a message containing target computer system information to the control server through the communications network.

Per claims 8 and 22:

-a machine communication system operably connected to said machine processor, said machine communication system receiving said available update from said remote communication system.

(Cantos, Col. 8, lines 44-46, “If the message is related to the target computer system, the agent determines whether the information is to be sent...”, col. 8, lines 55-58, “...initiates the presentation of relevant information to the user, either through the management tool GUI, electronic mail, a printed report or some other form...user input may be required for further action.”)

Per claims 9-11 and 23-25:

-said remote communication system comprises wireless communication means / cellular system / satellite system.

(Cantos: Col. 3, line 19, “...mobile/wireless...”, col. 3, line 49, “...satellite, cellular...”

Response to Arguments

5. Applicant's arguments with respect to claim1, 12, and 26 have been considered but are moot in view of the new grounds of rejection.

Conclusion

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6. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

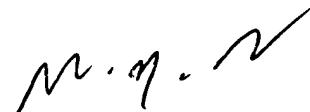
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman

05/10/2005



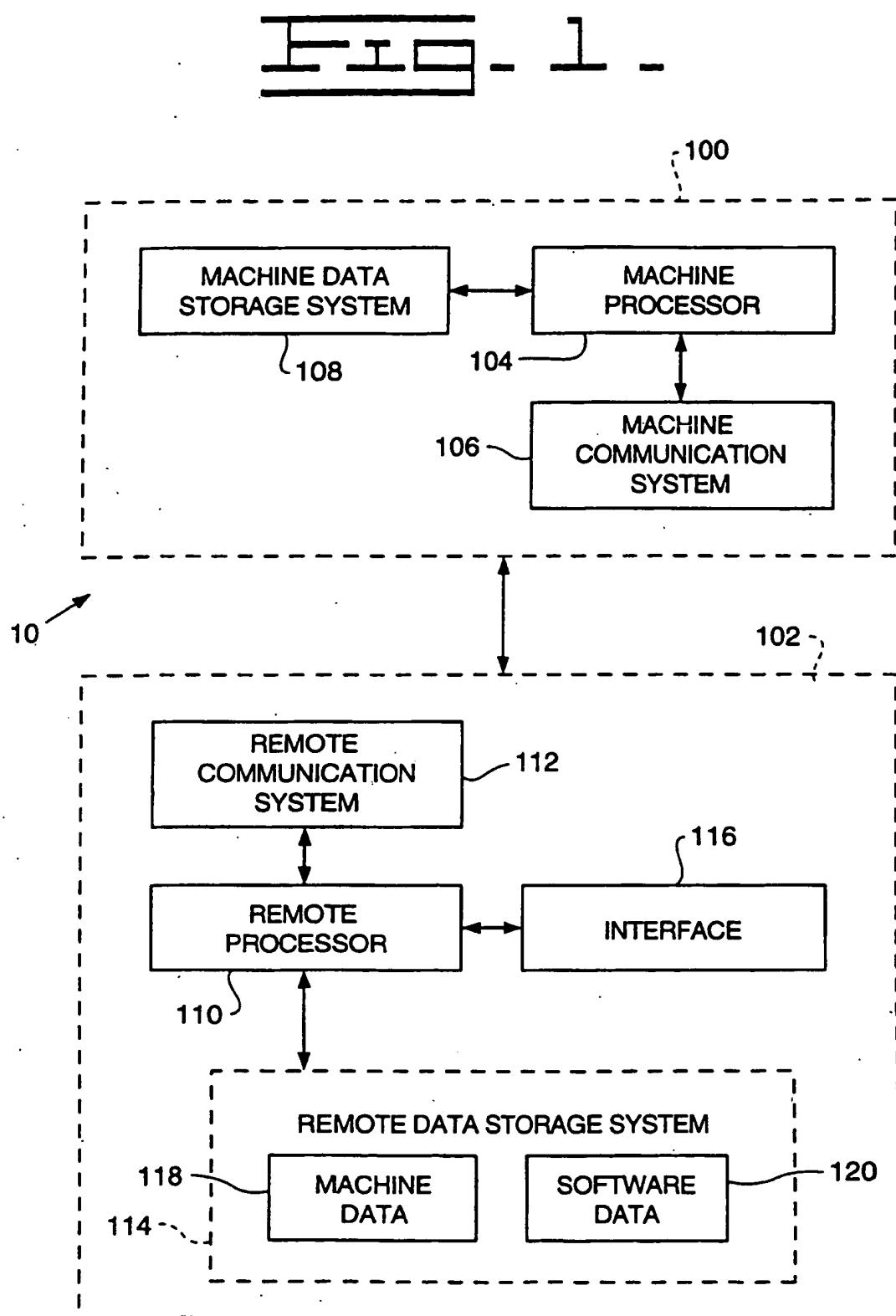
WEI Y. ZHEN
PRIMARY EXAMINER



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REPLACEMENT SHEET

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